

Remarks/Arguments

A. Claims in the Case

Claims 1 and 2 are rejected. Claims 1 and 2 are pending in the case.

B. The Claims Are Not Anticipated Pursuant to 35 USC §102

The Examiner rejected claims 1 and 2 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,684,187 granted to Rudy, Jr. et al. (hereinafter referred to as "Rudy"). Applicant respectfully disagrees with these rejections.

The standard for "anticipation" is one of fairly strict identity. To anticipate a claim of a patent, a single prior source must contain all the claimed essential elements. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 U.S.P.Q.81, 91 (Fed.Cir. 1986); *In re Donahue*, 766 F.2d 531, 226 U.S.P.Q. 619, 621 (Fed.Cir. 1985). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Applicant submits that claims 1 and 2 are directed to a connector for electrical conductors that is distinguished by the simplicity of the method for retaining and sealing the locking members in the connector body or case, by the quality of the sealing afforded by this method, and by a low cost of the connector.

Specifically, claim 1 is directed to a connector for electrical conductors and recites a combination of features that include:

contact/locking end-fittings on the ends of the connector to be connected designed to be inserted into electrically insulated locking members retained inside a connector body or case, wherein the locking members are retained inside the case and electrically insulated by a single retention and insulation element produced as a single part, made of an elastomer, by overmoulding of the locking members directly in the body so as to surround the locking members on the side facing the case and at least on the rear side of the connector and having openings on the rear side of the connector for insertion of the end-fittings and for sealed passage of the conductors fitted with the end-fittings.

Thus, the connector of claim 1 includes the feature of a retention and insulation element. The retention and insulation element is manufactured as a single part from an elastomer that is molded over the locking members in the connector. Production of the retention and insulation element in this manner allows the element to function at least to retain the locking member in the connector and to insulate it electrically. No other means of securing the retention and insulation element to the connector are required.

Applicant's specification recites:

In the connector according to the invention, the method of retention and electrical insulation includes a single retention and insulation element produced as a single part, made of an elastomer, by overmoulding of the locking members directly in the body or case so as to surround the locking members on the side facing the case and at least on the rear side of the connector and having here openings for the insertion of the end-fittings and for the sealed passage of the conductors fitted with the end-fittings.

This arrangement, therefore, makes it possible to dispense with all the mechanical methods for retaining the locking members in the connector body or case with this function along with the sealing function on the rear side of the connector now provided by a single element made of an elastomer formed directly in the connector body or case by overmoulding. (Specification, page 2, lines 4-16).

With respect to the claims, the Examiner states “Rudy, Jr. et al. disclose the retention and insulation element (38) is produced as a single part so as also to surround the locking members on the front side of the connector and having on the front side of the connector openings for sealed passage of the contacts.”

Applicant asserts that Rudy fails to teach or suggest at least this feature. In fact, Rudy explicitly teaches the use of retention tines to mechanically hold the retention article in place in the housing. Rudy recites:

A wafer-like article is formed of thermoplastic material, having holes therethrough for insertion of a plurality of contact terminals, and having rearwardly extending retention tines on sides thereof for being retained in a connector housing by stop shoulders or the like in the housing. Around each hole and extending forward from a planar section of the wafer are frustoconical resilient wall sections spaced from each other around the hole to be opposed from each other, and ends of the wall sections tend to converge such that when a contact terminal is inserted through the hole from a rearward end of the wafer it is engaged by the ends of the wall sections and it urges them apart; upon complete entry of the terminal into the wafer a rearwardly-facing circumferential stop surface of a stop shoulder of the terminal is engaged by the forward ends of the wall sections and is held against rearward movement relative to the wafer.

According to another aspect of the invention, an elastomeric material such as silicone rubber may be overmolded over the retention wafer to assist in retaining the wafer in the housing by providing spring force outwardly against the tines, to assist in retaining the terminal within the connector by providing spring force radially inwardly against the abutting wall sections to urge them more tightly around the terminal, to provide a sealing engagement by a rearward ledge against a rearward surface of the connector housing, and to assist in sealing around the insulation of the conductor to which the terminal is terminated. (Rudy, Col. 1, line 49-Col. 2, line 9).

Rudy further recites:

FIG. 2 shows a retention assembly 40 formed by retention wafer 10 having elastomeric material 38 overmolded around it with a first portion forward of planar section 12 and a second portion rearward thereof. Large

retention tines 14 of wafer 10 extend outward from assembly 40, and holes 42 (see in FIG. 4) are formed in the second portion of elastomeric material 38 such as during the overmolding process to be aligned with holes 16 of wafer 10 such that a terminal 80 may be inserted completely therethrough. Assembly 40 has a ledge 44 peripherally mostly therearound at its rearward end 46, opposing parallel sidewalls 48 and opposing parallel end walls 50 each having a slightly beveled perimeter 52 proximate forward end 54, which may be flush with coterminous ends 20 of wall sections 18 of wafer 10. Elastomeric material 38 may be silicone rubber or the like which provides spring force to tines 14 and wall sections 18 against which the elastomeric material 38 abuts, and also is expandable when urged by an extraction tool from within a hole 42. (Rudy, FIG. 2 and Col. 3, lines 25-44).

Rudy recites yet further:

Each large cavity 62 of housings 60, 160 has sidewalls 6 having recesses 68 therein whereinto retention tines 14 extending from sides of assembly 40 will be disposed upon insertion. During insertion of assembly 40 into housing 60, tines 14 are urged inwardly by sidewalls 66 of large cavity 62 and slide along sidewalls 66 until assembly 40 is fully seated in large cavity 62. Then tines 14 assisted by spring force of adjacent elastomeric material 38, are urged outwardly into recesses 68. An end of each tine 14 engages a forwardly-facing wall 70 of each recess 68 which together act as cooperating stop surfaces. Elastomeric material 38 along the inside surface of each tine 14 gives spring-like support to urge tine 14 outward, while allowing tines 14 to be flexed inwardly during insertion of assembly 40 into large cavity 62 of housing 60. It can be seen that large retention tines 14 allow retention assembly 40 to be self-retaining within housing 60, although adhesive material could be used to assure retention. Ledge 44 of assembly 40 engages rear surface 72 of housing 60, and can be seen to be dimensioned larger than large cavity 62 whereas assembly 40 generally is just slightly smaller than or possibly equal to the inside dimensions of large cavity 62. (Rudy, Col. 5, lines 13-35).

For at least the reasons outlines above, Applicant submits that Rudy fails to teach or suggest the combination of features recited in claim 1 and any claim depending therefrom, including but not limited to at least the feature of wherein the locking members are retained inside the case and electrically insulated by a single retention and

insulation element produced as a single part, made of an elastomer, by overmoulding of the locking members directly in the body so as to surround the locking members on the side facing the case and at least on the rear side of the connector and having openings on the rear side of the connector for insertion of the end-fittings and for sealed passage of the conductors fitted with the end-fittings. Applicant therefore asserts that claims 1 and 2 are patentable over the cited art pursuant to 35 U.S.C. §102(b) and respectfully requests the removal of the rejections on these grounds.

E. Summary

Based on the above, Applicant submits that the claims are in condition for allowance. Favorable reconsideration is respectfully solicited.

Inventor: Patrick Vantouroux
Appl. Ser. No.: 10/634,128
Atty. Dckt. No.: 5310-05100

Applicant respectfully requests a three-month extension of time to respond to the Office Action dated April 21, 2004. A fee authorization form is enclosed for the extension of time fee. If any further extension of time is required, Applicant hereby requests the appropriate extension of time. If any fees are inadvertently omitted or if any additional fees are required or have been overpaid, please appropriately charge or credit those fees to Meyertons, Hood, Kivlin, Kowert & Goetzel Deposit Account No. 50-1505/5310-05100/EBM.

Respectfully submitted,



Mark R. DeLuca
Reg. No. 44,649

Patent Agent for Applicant (s)

MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.
P.O. BOX 398
AUSTIN, TX 78767-0398
(512) 853-8800 (voice)
(512) 853-8801 (facsimile)

Date: 10/21/04